Water Quality Standards Advisory Committee
Full Committee Meeting

Minutes of May 16, 2001
9:00 am – 12:00 pm
Conference Rooms 113-114

Members present:

Marjory Swope	NH Association of Conservation Commissions
Vernon Lang	US Fish and Wildlife Service
Eileen Miller	NH Association of Conservation Districts
Carl Paulsen	NH Rivers Council
Steve Clifton	Consulting Engineers of NH
Wendell Berry	NH Lakes Association
Bill Beckwith	US Environmental Protection Agency
Robert Fawcett	NH Fish and Game
David G. Miller	NH Water Works Association
Jennifer Patterson	Conservation Law Foundation
John Dreisig	NH Public Health

Members Absent:

John Hodsdon	NH Farm Bureau
Michael P. Donahue	Business and Industry Association of NH
Donna Hanscom	NH Water Pollution Control Association
Kenneth Kimball	Recreational Interests
Timothy Fortier	NH Travel Council
Bill McDowell	University of New Hampshire
Francesca Latawiec	NH Office of State Planning
Jasen Stock	NH Timberland Owners Association
Jim Donison	NH Municipal Association

Interested participants present:

Andrew Serell	Rath, Young & Pignatelli Professional Association
William Heinz	Granite State Hydropower Association
Allan Palmer	Public Service of New Hampshire
Victor Krea	Wright-Pierce Engineering

Staff present:

Robert Estabrook	DES
George Berlandi	DES
Gregg Comstock	DES
Paul Piszczek	DES
Anne Carpenter	DES

1. Introduction

Marjory Swope called the meeting to order shortly after 9:00 am. Members and interested participants introduced themselves and accepted the minutes of the January 24 2001 meeting. Bob identified Anne Carpenter as the author of the minutes and introduced her as meeting secretary. Minutes will be distributed by e-mail in advance of and in print at the next meeting. Minutes will also, at some point, be posted on the WQSAC web site as soon as it is operational.

2. Status of flow-based permit issue

Bob Estabrook presented an overview in lieu of Paul Currier who was attending the NH BIA meeting along with several other WQSAC members. The flow-based permit workgroup meeting was not held until April 25, having been rescheduled due to inclement weather. Several participants inquired as to the availability of hard copies of Donna Hanscomb's presentation from the meeting regarding the copper problem at the Keene wastewater treatment plant, probably resulting from the copper piping used in most residential plumbing (none were available but Donna's presentation was in PowerPoint and she may be able to send it to someone, if asked). Some related questions arose regarding the Keene sampling methodology. It was asked if low flow or 7Q10 conditions had been in effect when the samples had been taken. The opinion was ventured that sampling during low flow conditions may be a more accurate method of collecting data. George Berlandi responded that those conditions had not been in effect at the time and that the Keene plant's permit was based on design flow and 7Q10 flow. Bill Beckwith added that the reason Keene's instream sampling did not violate surface water standards despite the plant exceeding its copper limits was that the sampling did not occur under 7Q10 conditions.

Drew Serrell was asked at the April 25th workgroup meeting to prepare materials regarding his ideas on the flow-based permitting issue. It was agreed that after today's full committee meeting that Drew and workgroup participants would stay on to hear Drew's information and to set the date for the next workgroup meeting.

3. Other water quality standard issues

Bob Estabrook provided some background and a timeline on the importance of identifying and examining water quality standard issues. New Hampshire's water quality rules were last revised in December 1999 (Chapter 1700). Federal law mandates that water quality rules be reviewed and revised if necessary every three years. Mindful of the amount of time it took for the finalized language of the last revisions to be reviewed and adopted, Bob estimated the group's deadline for submitting finalized wording for the December 2002 revised rules to be July 2002. Members can suggest candidate issues to be addressed or can propose actual revised language on a copy of the current rules. To date the only water quality issue to have been identified and acted on in any fashion is that of flow-based permitting. It is vital that other water quality issues be identified and analyzed for possible revision promptly.

Vernon Lang, referring to the minutes of the November 2000 meeting, broached several other issues that had been slated for review. Of these, several were determined to be issues that DES was working on but would not be ready for the December, 2002 rule adoption date (e.g., numeric biocriteria and nutrient criteria). DES's position on mercury is on hold pending changes in EPA's own standards. George Berlandi affirmed that updating the mercury standards per EPA revisions, along with some other minor changes, would be the only modifications to this rule. DES is working on nutrient criteria with NEIWPCC but rule changes will not be proposed until after 2002. Group members identified dissolved oxygen, temperature and water transfers as action issues and decided to form workgroups for more intensive study and recommendations.

Dissolved Oxygen (designation of coldwater spawning areas)

Group members discussed the questions of dissolved oxygen (DO) and water temperature and the need for revising New Hampshire's water quality rule language. Historically, New Hampshire DES has signed off on dissolved oxygen and temperature criteria for water quality rules using information gathered by the New Hampshire Department of Fish & Game. The colloquial "rule of thumb" for designation consisted primarily of identifying those waterbodies used as spawning grounds for salmonid species as coldwater bodies and distinguishing all other water bodies as "warm." If no information was available, coldwater was the default. The feasibility of this method was questioned at some length.

The merit of Fish & Game bearing the sole brunt of responsibility for designating the dissolved oxygen content and temperature of New Hampshire waterbodies—and the appropriateness of the Committee dictating the department's activities—was debated. Vernon Lang supported the idea of Fish & Game conducting further mapping and designation surveys. Bob Fawcett of Fish & Game responded that his is a small department with limited resources but that they had previously compiled and mapped a list of coldwater bodies. Identifying the mapped areas as spawning grounds and using their populations to create a set of data, however, might not be 100% accurate. It is impossible to determine if hatchlings are aboriginal or the result of stocking. Additionally, is the determination that a water body is "cold water" made with real time information or forecasts? One can classify a water body as cold water with the aim that it be managed to fulfill that prophecy; intention and reality, however, often diverge. The impact of water stratification, laterally and vertically also come into play: if a water body is warm nearer its shores and cooler near its center how is the designation reached? Bill Beckworth commented that although there may be some temperature-influenced mix of water body habitats, temperature designations are typically protective and favor the "cold" categorization if there is any question. An interim map by F&G could be a possibility as work on temperature designation issues continues.

Jennifer Patterson asked if the responsibilities of any other state agencies overlap with those of Fish & Game. Robert Fawcett was asked how the Fish & Game Department presently responds to designation and other water body questions in its scope. He responded that Fish & Game typically takes questions and relays them to the biologist most familiar with the area. Fish & Game does not necessarily commit to researching

problem areas. Some body of Fish & Game information, however, does exist informally in and around the state, in county surveys, biologists' notes, et cetera. Department of Environmental Services' information is actually published in the form of water body surveys. Fish & Game disseminates information but is not in the business of regulating water bodies. Bill Beckworth asked which agency—DES or Fish & Game—has the final say in designating water body temperatures. Fish & Game advises DES and DES, in turn, can instruct the permittee to collect data and/or conduct a study—with the onus on the permittee. Eileen Miller asked which kind of data, actual or projected, was used in furnishing information. The response: a bit of both. Actual existing conditions along with projected impact of the permittee's additional input on DO levels each figure in the body of data.

A participant asked George Berlandi if the Wastewater Bureau has NPDES data on temperatures. Mr. Berlandi responded that the responsibility falls on Fish & Game to identify water body temperature, with the Wastewater Bureau making the final decision on the permit.

Enough issues and questions concerning designating coldwater areas and temperature exist to warrant the forming of a workgroup. (A list of workgroups formed and their members was e-mailed to committee members a few days after the meeting by Bob Estabrook, along with a list of related Action Items.) Some felt that paragraph (c) of Env-Ws 1703.07 (dissolved oxygen) in the current water quality rules does not state explicitly which state agency has final responsibility for designating water body temperature. The lack of explicitness makes the current rule somewhat unclear but also offers opportunity for revisions. The revisions could address the question of final responsibility—should data collection and reporting always fall to Fish & Game or shift to Environmental Services, make the rule language clearer and more specific, and distinguish between point and non point (thermal) pollution sources.

Temperature

Also discussed was the possibility of designating specific allowable numeric temperature changes under Env-Ws 1703.13 (temperature). Allan Palmer commented that numeric temperature limits do not afford permit holders much flexibility. The threshold for numeric temperature limits is the point at which water temperature impacts water usability of the waterbody in question in the case of Class B waters. Waterbody specific studies are the best method to determine that threshold. Class A waters are legally protected from any artificial temperature impact. Vernon Lang suggested specific numeric designations for mixing zones, especially for utilities like PSNH and Seabrook. There was some acknowledgement that temperatures in water bodies can and do vary; several PSNH plants, for example, are situated on the Piscataqua River where mixing occurs naturally.

Membership consensus: there are more questions than answers on both the dissolved oxygen and the temperature designation issues right now. While it's easy to agree that problems exist, it's difficult to agree on interpretations and solutions. A work group for temperature should also be formed.

Action Items:

- A list of dissolved oxygen (coldwater designations) and temperature workgroup members will be distributed to the membership, and members absent from the May 16 meeting will be asked if they, too, wish to serve on one or both of the subgroups. The deadline for responding is June 15th.

- Environmental Services will generate and distribute a background paper on dissolved oxygen content and temperature criteria explaining current practices and set the date and time of the workgroup meetings.

Water Body Transfers

Water body transfers (usually but not necessarily pertaining to transferring water from a river to a lake or pond) was suggested as an issue for discussion by Jim Donison at the November meeting. Currently, water body transfers are virtually prohibited because the rules as they stand prohibit the introduction of any phosphorus to a receiving body. It was generally agreed that a system of addressing the issue needed to be created and that the rules regarding transfers needed to be made more flexible.

Eileen Miller voiced her concern, saying that transfers could introduce other elements to receiving basins and that the whole process is very dangerous from a biological standpoint. Also raised was the potential of the transfer issue to overlap with the issue of water withdrawals and the issue of Instream Flow.

The question was posed if any transfers that took place now were allowed because they had been "grand fathered." Some transfers had, indeed, been authorized by legislation; others had simply happened without any authorization at all. George Berlandi provided some background information, commenting that because of the Loon Pond (a Class A water body that was a candidate for a transfer from the Pemigewasset River, a Class B water body) decision the concept of "transfer" became equated with that of a "discharge" and became subject to much closer scrutiny including NPDES review. Some members hoped that this scrutiny could, in time, be relaxed, and that a transfer would not necessarily be synonymous with a discharge. Steve Clifton recommended that a subgroup be formed to address the water transfer issue and his recommendation was agreed upon by the membership.

The water transfer discussion continued, prompting additional questions from committee members. Jennifer Patterson asked Bill Beckworth what EPA's stance on transfer permitting was. Bill responded that even if EPA wanted to play a role in permitting, it could not because of the DES "prohibition." Interpreting the DES ruling to mean that any concentration of phosphorus in transferred water constitutes a discharge, any discharge would be subject to NPDES determination—even if the receiving water's inherent concentration is higher than that of the water being transferred. It was reiterated that the introduction of nitrogen and phosphorus to receiving bodies was not the only issue - the introduction of biological organisms (exotics and natives) was also a major concern. The amount of water to be introduced was as much of an issue to some

members as its quality. How would the increased volume of water impact the biological integrity of the destination water body?

Bill Beckworth suggested that DES analyze the water transfer issue and identify what elements are perceived as problematic now, that is, which ones need to be addressed.

Action Items:

- Form a subgroup to address water transfer issues.
- Distribute a list of subgroup members and invite members who were unable to attend the May 16 full meeting to join the workgroup.
- DES will generate a background paper on the issue of water transfers and build a preliminary framework for modifications.
- DES will set date and time for the next subgroup meeting.

4. Other Business

Following the general discussion of the two salient water quality issues for revision, the membership decided to set a deadline of Friday, June 15, 2001 for the committee to identify any other water quality issues needing study and possible revision and submitting them to the Department of Environmental Services through Bob Estabrook. The scheduling of subsequent full and workgroup-only meetings was discussed. Many suggested that the next full WQSAC meeting be held after the workgroups had met and communicated their preliminary findings. Carl Paulsen expressed the hope that there could be a full committee meeting before that time, so that newly identified water quality rules issues could be identified and presented. Because only a month stands between this meeting and the June 15 submission deadline, several other members questioned the possibility of that happening in the time allotted.

Bob Estabrook offered to tabulate the issues submitted for consideration and alert the membership by print and e-mail so that new workgroups could be set up if necessary or the existing subgroups could be reorganized to study more than one issue. The next full committee meeting will probably be held in September 2001.

Steve Clifton expressed concern that the members absent from this meeting—almost half the membership—would be adversely impacted by the fast approaching submission deadline. Bob Estabrook responded that all members would be notified by (e-) mail of the June 15 deadline and the call would go out for more subgroup volunteers to work on existing and newly-determined water quality issues.

It was motioned that the full meeting adjourn and interested members remain in the conference for Andrew Serell's presentation on flow-based permits.

The full meeting of the Water Quality Standards Advisory Committee adjourned at 10:30 am.

Respectfully submitted,

Anne Carpenter
Secretary